



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,465	07/17/2003	Takeshi Kusudou	240435US0	9209

22850 7590 12/13/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

REDDICK, MARIE L

ART UNIT PAPER NUMBER

1713

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,465

Applicant(s)

KUSUDOU ET AL.

Examiner

Judy M. Reddick

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/17/03;10/15/03;10/30/03;11/10/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/15/03;11/10/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements filed 10/15/03 & 11/10/03 have been considered and scanned into the application file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara et al (U.S. 6,472,470 B1, alone (1-6, 9 & 10) and further in combination with Sharkey (U.S. 2,396,209, 7,8 & 11).

Fujiwara et al teach ethylene-vinyl alcohol copolymer and compositions therefrom, useful as image forming material, as a binder for paints and ceramics (9 & 10), as a raw material for polyvinyl acetal, formal and butyral resins (3), as a raw material for shaped articles such as films, sheets, tubes, laminates, etc., wherein the ethylene-vinyl alcohol copolymer is characterized as having an ethylene unit content of 2 to 19 mole %, a degree of polymerization of 200 to 2,000, a degree of saponification (hydrolysis) of 80 to 99.99 mole %, a total content of carboxyl group and lactone rings of 0.02 to 0.4 mole % and a 1,2-glycol bond content of 1.2 to 2 mole % wherein the ethylene vinyl alcohol copolymer is produced, for example, by a process which comprises copolymerizing ethylene, vinyl ester monomer such as vinyl acetate and a monomer capable of forming carboxyl group and lactone rings to form a vinyl ester polymer, followed by saponification (hydrolysis) of the polymer in solution in an alcohol such as methanol having a water content of 0.001 to 1 wt. % or dimethyl sulfoxide followed by washing and vacuum drying or by a process which comprises effecting **acetalization of PVA with an aldehyde** having carboxyl groups and where a film formed therefrom has a thickness of 20 μm (the Abstract, col. 1, lines 7-26, col. 2, lines 36-63, col. 3, lines 1-62, col. 4, lines 22-53, col. 5, lines 1-8, col. 6, lines 11-67, col. 7, lines 1-51, col. 8, lines 38-40, col. 9, lines 44-57, col. 10, lines 3-56). Fujiwara et al further teach that the ethylene-vinyl alcohol copolymer or compositions therefrom can contain the usual conventional additives that include fillers, plasticizers such as polyhydric alcohols, etc. (paragraph bridging cols. 10-11 & col. 11, lines 6-61). Fujiwara et al further teach that in producing a laminate an aqueous solution of ethylene-vinyl alcohol copolymer is applied onto a base film wherein the aqueous solution can contain a surface active agent (col. 13, lines 18-32). Fujiwara et al further specifically teach that in forming the laminate, it is desirable to subject a base film to a first-stage stretching, applying the aqueous solution and then subjecting the film with the solution to a second stage stretching during or after which conducting heat treatment of the laminate wherein, the thickness of the vinyl alcohol layer is preferably 0.1 to 20 μm (col. 13, lines 39-49). See also at least TABLE 5, Run 12.

The disclosure of Fujiwara et al differs basically from the claimed invention as per the non-specific disclosure of a polyvinyl acetal governed by a degree of acetalization of from 45 to 80, as claimed but rather, the polyvinyl acetal of Fujiwara et al is generic and therefore necessarily implies that any polyvinyl acetal, including the claimed polyvinyl acetal, would have been operable within the scope of patentees invention and with a reasonable expectation of success. Moreover, the use of any commercially available polyvinyl acetal in lieu of the polyvinyl acetal of Fujiwara et al would have been obvious to the skilled artisan and with a reasonable expectation of equivalent results.

Species of a genus is prima facie obvious and applicant's burden, under these circumstances, is to establish that the species or subgenus provides some unexpected result over the applied reference. *In re Woodruff*, 16 USPQ 2d 1934 (Fed. Cir. 1990); *In re Susi*, 169 USPQ 423 (CCPA 1971). See also *In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994);

It is tenable that the polyvinyl acetal of Fujiwara et al, **as modified**, would meet the limitations per claims 4 & 6 since it is essentially the same as the claimed polyvinyl acetal.

The fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious." *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985) (The prior art taught combustion fluid analyzers which used labyrinth heaters to maintain the samples at a uniform temperature. Although appellant showed an unexpectedly shorter response time was obtained when a labyrinth heater was employed, the Board held this advantage would flow naturally from following the suggestion of the prior art.). See also *Lantech Inc. v. Kaufman Co. of Ohio Inc.*, 878 F.2d 1446, 12 USPQ2d 1076, 1077 (Fed. Cir. 1989), cert. denied, 493 U.S. 1058 (1990) (unpublished — not citable as precedent) ("The recitation of an additional advantage associated with doing what the prior art suggests does not lend patentability to an otherwise unpatentable invention."). See M.P.E.P. § 2145 II.

When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear and convincing factual evidence that the respective products do in fact differ in kind - *In re Brown*, 59 CCPA 1063, 173 USPQ 685 (1972); *In re Fessman*, 180 USPQ 324 (CCPA 1974) - and to come forward with evidence establishing unobvious differences between the claimed product and the prior art product. *In re Marosi* 218 USPQ 289.

Further, while Fujiwara et al does not expressly teach the use of the polyvinyl acetal as a precursor in forming an interlayer film(7), laminated glass(8) and thermally-developable photographic material (11), Sharkey teaches the use of polyvinyl acetals derived from hydrolyzed interpolymers of ethylene/vinyl esters and films therefrom, similar to the polyvinyl acetals of Fujiwara et al, in forming safety glass interlayers (7 & 8), photographic film bases (11) and other

Art Unit: 1713

similar uses (pages 1-3, Runs and claims). Therefore, it would have been obvious to the skilled artisan to use the polyvinyl acetal of Fujiwara et al in forming the products of claims 7, 8 & 11 and with a reasonable expectation of success.


Conclusion


7. The prior art to Harita et al (U.S. 6,803,411 B2) listed on the attached FORM PTO 892 is cited as of interest in teaching polymers of vinyl alcohol and acetalized products therefrom useful in forming polarizer films and is considered merely cumulative to the prior art supra. The remaining prior art is cited as of being illustrative of the general state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571) 272-1110. The examiner can normally be reached on 6:00 a.m.-2:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Judy M Reddick
Primary Examiner
Art Unit 1713

JMR 
12/10/04